

REMARKS

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

The present invention as set forth in **amended Claim 9** relates to a method for producing functional film, comprising:

applying a coating liquid having functional microparticulates dispersed therein onto a support, thereby forming a microparticulate-containing coating,

drying the microparticulate-containing coating,

compressing the microparticulate-containing coating at a temperature of 15 to 40°C, thereby forming a functional film comprising a compressed microparticulate-containing layer, and

transferring the functional film onto another support;

wherein the compressed microparticulate-containing layer does not have cracks even when drawn 10%; and

wherein the compressed microparticulate-containing layer does not comprise a resin as a binder.

The present invention as set forth in **amended Claim 18** relates to a method for producing a functional film, comprising:

applying a coating liquid having functional microparticulates dispersed therein onto a support, thereby forming a microparticulate-containing coating,

drying the microparticulate-containing coating,

compressing the microparticulate-containing coating at a temperature of 15 to 40°C thereby forming a functional film comprising a compressed microparticulate-containing layer, and

transferring the functional film onto another support;

wherein the compressed microparticulate-containing layer exhibits a surface resistivity after being drawn 10% which is at most 10 times greater than the surface resistivity prior to drawing; and

wherein the compressed microparticulate-containing layer does not comprise a resin as a binder.

Bottari (US 6,280,552), Seeger, Jr. et al and/or Leverenz et al fail to disclose or suggest compressing the conductive pattern prior to transferring it another support.

It is believed in the art that a large amount of binder resin must be used before a functional film can be formed or in the absence of binder resin, the functional material must be sintered at high temperature before a functional film can be formed. See the specification at page 7, lines 7-11.

However, making extensive investigations, quite surprisingly, the inventors have found that a functional film can be formed simply by compressing a functional microparticulate-containing coating, without a need for a large amount of binder resin or firing at high temperature. See page 7, lines 12-16 of the specification.

Additionally, the inventors have found that the functional film resulting from compression has a high mechanical strength and a high function such as low electrical resistivity and no cracks occur even when the film is drawn 10%. The inventors have further found that in the case where the film is an electrically conductive film, the surface resistivity after drawing is within 10 times greater than the surface resistivity prior to drawing, indicating a small reduction of the function. See page 7, lines 17-26 of the specification.

The present invention is based on these findings and a feature of the present invention lies in that a functional film formed by applying a functional paint onto a support is compressed prior to transferring it onto another support.

In contrast, Bottari discloses a process comprising steps of forming a conductive pattern onto a decal paper using a screen printing, drying the conductive pattern, removing the conductive pattern from the decal paper and transferring the conductive pattern onto a touch screen panel. However, Bottari neither discloses nor suggests compressing the conductive pattern prior to transferring it onto the touch screen panel. **As a result, it is impossible to fabricate a film having a high mechanical strength by the process of Bottari.** Therefore, Claims 9 or 18 are not anticipated by Bottari.

Seeger discloses compressing metal particles applied onto the removable layer 19 by applying pressure and heat. However, the metal particles are compacted at 300°F in Seeger and therefore, a resin film which is most popularly used as a support cannot be employed as a support. In the present invention, however, the **compressing of the microparticulate-containing coating occurs at a temperature of 15 to 40°C.**

Leverenz et al fails to cure the defects of Bottari and Seeger, Jr. et al.

Therefore, the rejections over Bottari (US 6,280,552) alone and in view of Seeger, Jr. et al or in view of Leverenz et al (US 6,214,247) are believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of the rejections is respectfully requested.

The rejection of Claims 9, 10, 18 and 19 under 35 U.S.C. § 112, 2nd paragraph, is traversed.

The limitation “the compressed microparticulate-containing layer does not have cracks even when drawn 10%” **defines the characteristics of the compressed microparticulate-containing layer when it is drawn.** Thus, this limitation relates to the high mechanical strength of the layer. The phrase “the compressed microparticulate-containing layer exhibits a surface resistivity after being drawn 10% which is at most 10 times greater than the surface resistivity prior to drawing” **defines the characteristics of the**

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compressed microparticulate-containing layer when it is drawn. See also page 7, lines 17-26 of the specification. The rejection should be withdrawn.

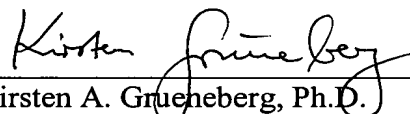
With respect to “peel strength”, contrary to the Examiner’s understanding, the peel strength is normally expressed in terms of force per unit length. In this connection, please see ASTM D-903-49, for example. Thus, the rejection should be withdrawn.

This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or otherwise wish to discuss this case, he is kindly invited to contact Applicants’ below-signed representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.

Respectfully submitted,

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